



U.S. Fish & Wildlife Service

Delmarva Peninsula Fox Squirrel

The Delmarva Peninsula fox squirrel (*Sciurus niger cinereus*) is named for the geographic area defining most of its habitat or range: the entire state of Delaware, southern Pennsylvania and the peninsula of Maryland and Virginia. While it was once plentiful, the squirrel's population dropped so drastically that it became endangered. Recovery efforts are helping to turn the tide, and now the population is expanding.

The largest of all the tree squirrels, the Delmarva Peninsula fox squirrel has heavy, silver to whitish-gray slate hair and an unusually full, fluffy tail and white belly. It can grow to 30 inches (with half of that being tail) and can weigh 1½ to 3 pounds. The squirrel's coat varies in color from frosty silver-gray to almost black.

Behavior

Although the Delmarva Peninsula fox squirrel is a forest species, it prefers to spend its time on the ground foraging for food in woodlots and openings, such as farm fields. It usually avoids confrontations by running away rather than climbing up a tree; however, fox squirrels will climb trees to avoid predators. When moving from tree to tree, the squirrels frequently descend down the first tree to the ground then climb up the second tree rather than leaping from tree to tree. The squirrels mate in late winter and early spring. About 44 days later in February and March most young are born. Females give birth to litters averaging one to four young and raise the litters by themselves. The squirrels can have up to two litters per year.



Delmarva Peninsula fox squirrels prefer woodlots of mixed hardwoods such as oak, maple, hickory, beech and pine. These trees provide them with food they like such as nuts and seeds. Unlike the common gray squirrel that builds a nest of leaves high up on a branch, the Delmarva Peninsula fox squirrel prefers to nest in tree cavities in mature forests both hardwood and pine trees with minimal understory and ground cover. USFWS photo.

Habitat

Delmarva Peninsula fox squirrels live in mature mixed pine and hardwood forests along streams and marsh land and may also occupy small woodlots near agricultural fields. They prefer woodlots of mixed loblolly pine and hardwoods such as oak, maple, hickory and beech. These trees provide them with food they like such as nuts and seeds. Unlike the common gray squirrel that frequently builds a nest of leaves high up on a branch, the Delmarva Peninsula fox squirrel prefers to nest in tree cavities in mature forests (both hardwood and pine trees) with minimal understory and ground cover. Occasionally however, it will build a leaf nest. Delmarva Peninsula fox squirrels feed heavily on nuts and seeds (mast) primarily oak, hickory, walnut and loblolly pine. During the spring, they feed on tree buds and flowers and will also eat fungi, insects, fruit and seeds. In the summer and early fall, Delmarva Peninsula fox squirrels feed on mature, green pine cones.

Imperiled Population

The Delmarva Peninsula fox squirrel once occupied the whole Delmarva Peninsula as well as parts of southeastern Pennsylvania and west-central New Jersey. By the early 1900s the population was reduced to only the Eastern Shore of Maryland. Predators of the squirrel, including red and gray foxes, weasels, minks, eagles and other raptors, also contributed to their mortality. Nestlings and young may be taken by raccoons, great horned owls, opossums and black rat snakes. Some accidental deaths by vehicles also occur and occasionally Delmarva Peninsula fox squirrels are misidentified and shot by hunters. When the U.S. Fish & Wildlife Service (Service) provided Endangered Species Act protection for the squirrel in 1967, it occupied only four counties in Maryland (Kent, Queen Anne's, Talbot and Dorchester) less than 10 percent of its historic range. Thanks to reintroduction

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Photo by Michael Colopy

efforts by the Service, Maryland Department of Natural Resources and other state wildlife agencies, the squirrel can now be found in all counties on the Eastern Shore of Maryland and a few sites in Delaware, Pennsylvania and Virginia. The primary cause of the Delmarva Peninsula fox squirrels' endangered status is habitat loss from agricultural and residential development. Isolated woodlots were encroached upon and the squirrel became vulnerable.

Recovery Efforts

Habitat restoration for the Delmarva Peninsula fox squirrel began in 1945 when Maryland Department of Natural Resources purchased LeCompte Wildlife Management Area in Dorchester County. Legal hunting for the squirrel was banned in 1971. Following the squirrel's protection as an endangered species in 1967, the Delmarva Peninsula Fox Squirrel Recovery Team began coordinating state and federal efforts for the species' restoration and protection. The team launched a reintroduction program to reestablish the squirrel throughout its native range. Much of the squirrel's occupied habitat is privately owned lands. The Delmarva Peninsula fox squirrel also receives additional protection through the Chesapeake Bay Critical Area Law of 1984, which requires endangered species habitat protection within critical areas (1000 feet landward of low mean high tide).

The Future and You

The Delmarva Peninsula fox squirrel can have a bright future with a little help. The successful recovery of the Delmarva Peninsula fox squirrel depends on the willingness of landowners to provide habitat for these squirrels. Farmers can continue to provide prime habitat for the squirrels. Leaving uncut corn or soybeans along hedgerows gives the squirrels food through the winter. Developers can also assist with conservation efforts by leaving desirable woodlot trees intact (e.g., nut, seed and berry producers) and by providing corridors from one small woodlot to another. A buffer of trees and hedgerows between streams and development can also help the squirrels survive. Citizens can build nest boxes and place them in trees within the forest where Delmarva Peninsula fox squirrels reside. Efforts to recover the Delmarva Peninsula fox squirrel will help protect not only the squirrel, but also other species that depend on the native forests of the Delmarva Peninsula. One of the principal criteria of the species recovery is stability or expansion of Delmarva Peninsula fox squirrel populations during a five-year period. Five year monitoring data from several sites is currently being analyzed. The sites include: Eastern Neck National Wildlife Refuge; Chincoteague National Wildlife Refuge; Blackwater National Wildlife Refuge; Maryland's Wye Island Natural Resource Management Area; and LeCompte Wildlife Management Area.

Using the GIS (Geographic Information System), biologists will be able to identify suitable habitat over a large area and monitor land use near Delmarva Peninsula fox squirrel habitat with the ultimate goal of recovering this species to a population level that no longer require Endangered Species Act protection.

Chincoteague National Wildlife Refuge

During 1969–1971, 30 Delmarva Peninsula fox squirrels were relocated to Chincoteague National Wildlife Refuge and released in habitat surrounding the historic Assateague Lighthouse. Since the early 70's, the population of squirrels at Chincoteague Refuge has reached 300–350, with new populations dispersing on their own throughout the southern portion of the refuge.

Refuge biologists conduct an annual fox squirrel box check to monitor the population. If a squirrel is found in a nest box, biologists capture the squirrel with a holding device and give it an ear tag. Each ear tag is numbered and provides biologists with vital information about the squirrels' sex, age, and whether or not the animal is a recapture. Refuge biologists use this information to monitor the status and trends of Delmarva Peninsula fox squirrels and to alter their management program when necessary.

Chincoteague Refuge's long-range plan for these squirrels is to maintain enough habitat to support the current population with the ultimate goal of transplanting part of the Chincoteague populations to other suitable habitats on the Eastern Shore of Virginia.